



# UNITED STATES PATENT AND TRADEMARK OFFICE

On

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,798	11/04/2003	Yoshiaki Miyake	Q78285	9394

23373 7590 09/22/2004

SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

ALIE, GHASSEM

ART UNIT PAPER NUMBER

3724

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/699,798

Applicant(s)

MIYAKE ET AL.

Examiner

Ghassem Alie

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the filing date of the application.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/04/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Specification***

1. The specification is objected to under 37 CFR 1.71 for not disclosing (a) fails to teach how the cutting means cuts the napped cloth in both Vy and Vx directions. It appears that the cutting device 30 and the cutting blade 20 only move in x and z directions. The cutting blade moves in x or Vx direction by the reciprocating movement of the switching arm 65, which is coupled t the cutting means 30. The blade moves in z direction by the movement of the cutter drive arm in z direction. However, it is not clear how the cutting means 30 or the cutter 20 moves in y or Vy direction. It is also not clear what is the reason for a movement of the cutter 20 along y or Vy diection. It is not clear how the cutting action take place in y or Vy direction

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2, 3, 5, 6, 8, 9, 11, and 12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claims 2 and 3, the disclosure fails to teach how the cutting means cuts the napped cloth in both Vy and Vx directions. It appears that the cutting device and the cutting blade only move in x and z directions. The cutting blade moves in x or Vx direction by the reciprocating movement of the switching arm, which is coupled t the cutting means. The blade moves in z direction by the movement of the cutter drive arm in

z direction. However, it is not clear how the cutting means or the cutter moves in y or Vy direction. It is also not clear what is the reason for a movement of the cutter along y or Vy direction. It is not clear how the cutting action take place in y or Vy direction. Regarding claim 3. It is not clear how there is a ratio between the Vx and Vy components wherein the cutting means or the blade moves with the same speed in all the directions.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, and 5, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Warthen et al. (5,979,278), hereinafter Warthen. Regarding claim 1, Warthen teaches a cutting mechanism 30 or 230 for napped cloth 31 to cut a napped cloth having a single napped surface 32. The fabric 31 has a base portion 33 and a pile portion 32 which defines a napped surface. Warthen also teaches a cutting means for cutting napped cloth 31 by advising a cutter 36 or 236 through the napped surface 32. See figs. 1-17 and col. 4, lines 7-67 and col. 7 and 7, lines 1-67 in Warthen.

Regarding claim 2, as best understood, Warthen teaches everything noted above including that the cutting means 30 or 230 cuts the napped cloth 31 by moving the cutter 36 or 236 so that both Vy, a component of velocity in a direction wherein the blade extends, and Vx, a component of velocity in a direction wherein the blade of the cutter 36 or 236 extends

Art Unit: 3724

become larger than zero. The  $V_y$  is defined by the up and down movement of the blade 36 or 236 by the cylinder 35 or 297. See Figs. 1-18 in Warthen.

Regarding claim 4 and 5, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the napped cloth 31, define the fastener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.

6. Claim 1, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Brocklehurst (5,018,462). Regarding claim 1, Brocklehurst teaches a cutting mechanism 15 for napped cloth 19 to cut a napped cloth having a single napped surface. Warthen also teaches a cutting means for cutting napped cloth 19 by advising a cutter 22 through the napped surface 23. The blade 22 is capable of being advanced through any napped portion. See Figs. 1 and 2 and col. 2, lines 56-69 and col. 3, lines 1-64 in Brocklehurst.

7. Claims 1 and 2, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al. (4,793,033), hereinafter Schneider. Regarding claim 1, Schneider teaches a cutting mechanism for napped cloth 12 to cut a napped cloth having a single napped surface. Schneider also teaches a cutting means 150 for cutting napped cloth 12 by advising a cutter 18 through the napped surface. The blade 18 is advanced through the napped surface in x, y, and z directions. See Figs. 1 and 2 and col. 3, lines 23-68 and col. 4, lines 1-55 in Schneider.

Regarding claim 2, as best understood, Schneider teaches everything noted above including that the cutting means 15 cuts the napped cloth 12 by moving the cutter 18 so that

Art Unit: 3724

both  $V_y$ , a component of velocity in a direction wherein the blade extends, and  $V_x$ , a component of velocity in a direction wherein the blade of the cutter 18 extends become larger than zero. The cutting means 15 advances in x, y, and z directions and inherently has  $V_x$ ,  $V_y$ , and  $V_z$  components. See Figs. 1 and 2 in Schneider.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 6, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Warthen. Regarding claim 1, Warthen teaches everything noted above except that the  $V_x/V_y$ , a ratio of the component of velocity  $V_x$  to the component of velocity  $V_y$  satisfied the condition  $0.5 < V_x/V_y < 2.0$ . However,  $V_x/V_y$  ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio  $V_x/V_y$  ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 6, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the

Art Unit: 3724

napped cloth 31, define the fattener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.

10. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthen. Regarding claim 7-12, Warthen teaches everything noted above except that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. However, Official notice is taken that the Warthen's cutting mechanism is capable of cutting any napped cloth including a napped cloth having a light shielding cloth of a cassette for housing a photographic roll film. For example, the napped cloth having a light shielding cloth of a cassette for housing a photographic roll film as taught by Japanese Patent Publication No. 5(1993)-53256 and Patent Publication No. 7 919950-301888) can be cut by the Warthen's cutting mechanism.

11. Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider. Regarding claim 1, Schneider teaches everything noted above except that the  $V_x/V_y$ , a ratio of the component of velocity  $V_x$  to the component of velocity  $V_y$  satisfied the condition  $0.5 < V_x/V_y < 2.0$ . However,  $V_x/V_y$  ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio  $V_x/V_y$  ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, Schneider's cutter 18 can be programmed to move in x or y directions as desired.

Art Unit: 3724

12. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider. Regarding claim 7-9, Schneider teaches everything noted above except that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. However, Official notice is taken that the Schneider's cutting mechanism is capable of cutting any napped cloth including a napped cloth having a light shielding cloth of a cassette for housing a photographic roll film. For example, the napped cloth having a light shielding cloth of a cassette for housing a photographic roll film as taught by Japanese Patent Publication No. 5(1993)-53256 and Patent Publication No. 7 919950-301888) can be cut by the Schneider's cutting mechanism.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arbter (4,034,634), Furiness, JR., et al. (3,513,514), Blockehurst (5,816,177), Kambara et al. (5,299,513), Higgins (4,522,857), Brocklehurst (4,595,133 and 4,856,444) teach a cutting machine for napped cloth.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (703) 305-4981. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (703) 305-1082. The fax phone numbers for the



Art Unit: 3724

organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

GA/ga

September 13, 2004

A handwritten signature in black ink, appearing to read 'AS', followed by a long diagonal stroke.

Allan N. Shoap  
Supervisory Patent Examiner  
Group 3700